



# Natural Communities of Louisiana

## Hardwood Slope Forest

**Rarity Rank:** Hardwood Slope Forest - S3S4/G4

**Synonyms:** Beech-Magnolia Forest, Mixed Hardwood Forest, Hammock, Mixed Mesic Hardwood Forest

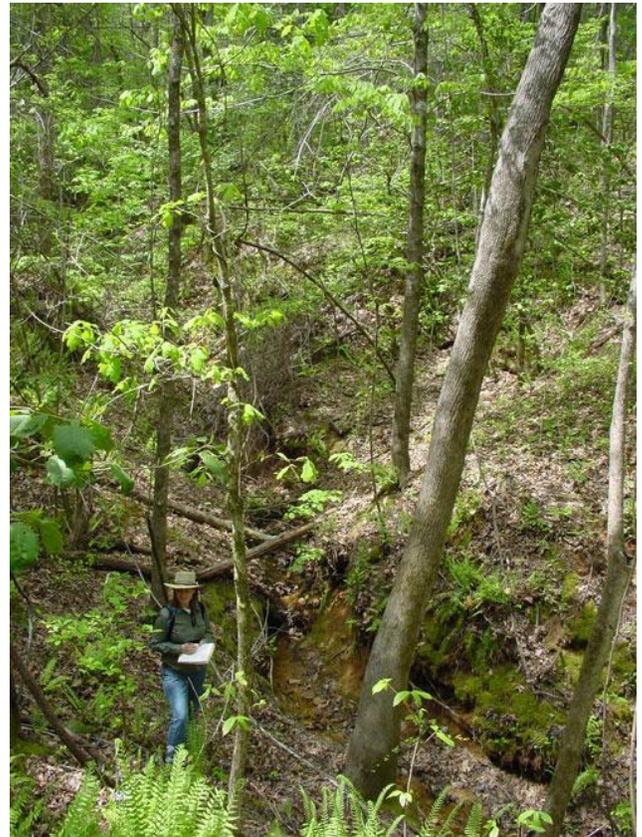
**Ecological Systems:**

CES203.280 West Gulf Coastal Plain Mesic Hardwood Forest

CES203.378 West Gulf Coastal Plain Pine-Hardwood Forest

### General Description:

- More or less evenly distributed in uplands statewide
- Occur on slopes (often steep) rising out of small stream floodplains
- Soils typically rich, mesic, silt loams, and silty clay loams with pH range from acidic to circumneutral
- Dominated by hardwood tree species, with generally sparse herbaceous layer
- *Pinus taeda* (loblolly pine) may be present but infrequent
- Fire occurred very rarely in hardwood slope forests, and insect and pathogen outbreaks are likely more important disturbance vectors in this community



### Plant Community Associates

#### Common overstory tree species include:

*Fagus grandifolia* (beech),  
*Quercus alba* (white oak),  
*Q. michauxii* (swamp white oak),  
*Q. laurifolia* (laurel oak),  
*Magnolia acuminata* (cucumber tree),  
*M. pyramidata* (pyramid magnolia, rarely),  
*Liquidambar styraciflua* (sweetgum),  
*C. cordiformis* (bitternut hickory),  
*Pinus taeda* (loblolly pine – occasional),

*Magnolia grandiflora* (southern magnolia),  
*Q. shumardii* (shumard oak),  
*Q. nigra* (water oak),  
*Q. velutina* (black oak),  
*M. macrophylla* (big-leaf magnolia),  
*Liriodendron tulipifera* (tulip tree),  
*Carya tomentosa* (mockernut hickory),  
*C. glabra* (pignut hickory),  
*Pinus glabra* (spruce pine – FL Parishes)

#### Common midstory & understory species include:

*Oxydendrum arboreum* (sourwood),  
*Styrax grandifolia* (bigleaf snowbell),  
*Symplocos tinctoria* (sweetleaf),  
*Stewartia malacodendron* (silky camelia),

*Halesia diptera* (silverbell),  
*Cornus florida* (flowering dogwood),  
*Prunus caroliniana* (cherry-laurel),  
*Ilex ambigua* (holly),



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## Common midstory & understory species continued:

*Amelanchier arborea* (downy service-berry),  
*Carpinus caroliniana* (ironwood),  
*Vaccinium arboreum* (winter huckleberry),  
*Erythrina herbacea* (red coral bean)

*Illicium floridanum* (starbush-FL Parishes),  
*Ostrya virginiana* (eastern hophornbeam),  
*V. elliotii* (Elliott's blueberry),

## Common herbaceous and fern species include:

*Hexastylis arifolia* (wild ginger, FL Parishes),  
*Polygonatum biflorum* (smooth solomon's seal),  
*Tipularia discolor* (crane-fly orchid),  
*Mitchella repens* (partridge-berry),  
*Podophyllum peltatum* (may-apple),  
*Polymnia uvedalia* (bear-paw),  
*Lilium michauxii* (Carolina lily),  
*Polystichum acrostichoides* (Christmas fern),  
*Phegopteris hexagonoptera* (broad beech-fern)

*Trillium* spp. (wake-robbers),  
*Uvularia perfoliatum* (bellwort),  
*Viola* spp. (violets),  
*Spigelia marilandica* (Indian pink),  
*Sanicula* spp. (snakeroots),  
*Chamaelirium luteum* (devil's-bit),  
*Arisaema* spp. (jack-in-the-pulpits),  
*Asplenium platyneuron* (ebony spleenwort),

## Federally-listed plant & animal species:

None

## Range:

Occurs in portions of the East Gulf Coastal Plain, Upper West Gulf Coastal Plain, and Lower West Gulf Coastal Plain

## Threats & Management Considerations:

The hardwood slope forest community is estimated to have occupied 100,000 to 500,000 acres historically and of that an estimated 25 to 50 % still remains. Habitat conversion to pine plantations or residential uses, invasive and exotic species, construction of roads, utilities and pipelines, and use of off-road vehicles all currently threaten long-term viability of these forests.



Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy hardwood slope forests. Such management strategies should include:

- Preventing conversion of existing natural forests to other land uses
- Maintain natural species composition by following appropriate hardwood management techniques
- No harvesting on steep slopes and during wet periods to prevent soil damage
- Surveying for and removal of any invasive plant species (exotics or woody) with use of spot herbicides or mechanical means
- Prohibiting off-road vehicle use or restricting use to existing trails